

**THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of: Brenneisen, et al.

Confirmation No.: 3801

Application No.: 10/580,186

Group Art Unit: 1654

Filing Date: September 21, 2007

Examiner: Phyllis G. Spivack

For: PLANT EXTRACTS FOR THE  
TREATMENT OF INCREASED  
BONE RESORPTION

Attorney Docket No.: 8588-US

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPELLANTS' REPLY BRIEF**

Sir:

**I. INTRODUCTION**

Appellants submit Appellants' Reply Brief in response to the Examiner's Answer dated May 27, 2011 pursuant to 37 C.F.R. § 41.41(a). Appellants respectfully submit that the Examiner's Answer has failed to remedy the deficiencies with respect to the final Office Action dated November 24, 2010, as noted in Appellants' Appeal Brief filed on April 20, 2011, for at least the reasons set forth below. Accordingly, Appellants respectfully request that the rejection of pending Claims 10, 12-24, 26-28, 38-40 and 45-47 be reversed.

II. **THE REJECTION OF CLAIMS 10, 12-24, 26-28, 38-40 AND 45-47 UNDER 35 U.S.C. §102(b) SHOULD BE REVERSED BECAUSE MÜHLBAUER FAILS TO DISCLOSE OR SUGGEST EACH AND EVERY ELEMENT OF THE PRESENT CLAIMS**

Appellants respectfully request that the Board reverse the rejection of Claims 10, 12-24, 26-28, 38-40 and 45-47 under 35 U.S.C. §102(b) because *Mühlbauer* fails to disclose or suggest each and every element of the present claims.

In the Examiner's Answer, the Examiner states that *Mühlbauer* "teaches all of the active components of [the] instant claims" because *Mühlbauer* teaches that the nutritional or pharmaceutical compositions contain[] a plant extract or concentrate selected from the group consisting of *allium*" and "indicates that the preferred extract is from *Allium cepa*." See, Examiner's Answer, page 10, lines 15-17 and line 22-page 11, line 1. Appellants respectfully disagree and submit that *Mühlbauer* fails to disclose or suggest each and every limitation of the present claims.

As discussed at length in Appellants' Appeal Brief, *Mühlbauer* fails to disclose or suggest nutritional and pharmaceutical compositions, respectively, comprising a  $\gamma$ -glutamyl-peptide selected from the group consisting of  $\gamma$ -glutamyl-alkyl-cysteine sulfoxide,  $\gamma$ -glutamyl-alkenyl-cysteine sulfoxide, and combinations thereof, a carrier, and a fat source as recited, in part, by independent Claims 10 and 24. Instead, *Mühlbauer* is entirely directed to plant extracts for the treatment of increased bone resorption. See, *Mühlbauer*, Abstract. Even if *Mühlbauer* discloses *allium cepa*, *Mühlbauer* fails to disclose the specifically claimed peptides that may be extracted therefrom. Appellants respectfully submit that there are many peptides that may be present in *allium cepa*. Indeed, *Kuttan* even discloses that there are several other types of peptides present in onion. See, *Kuttan*, page 4397, left column, 1<sup>st</sup> paragraph of Discussion. However, as discussed in detail in the specification and the Appeal Brief, Appellants have found that the presently claimed  $\gamma$ -glutamyl-peptides provide bone resorption inhibiting effects. Therefore, even if *Mühlbauer* discloses *allium cepa*, *Mühlbauer* fails to disclose or suggest the presently claimed  $\gamma$ -glutamyl peptides.

The Examiner further asserts that "*allium cepa* is not a genus as Appellant[s] indicate[]." See, Examiner's Answer, page 11, lines 14-15. Appellants respectfully submit that, while *allium cepa* may be a "species" per the biological classifications of Life, Domain, Kingdom, Phylum,

Class, Order, Family, Genus, Species, the reasoning of the Federal Circuit in *In re Peterson* should still hold. In this manner, while it is possible to obtain the presently claimed  $\gamma$ -glutamyl peptides from *allium cepa*, *allium cepa*, as disclosed in *Mühlbauer*, is too large for the skilled artisan to “envise” a  $\gamma$ -glutamyl-peptide extracted from *allium cepa*, let alone a specific  $\gamma$ -glutamyl-peptide selected from the group consisting of  $\gamma$ -glutamyl-alkyl-cysteine sulfoxide,  $\gamma$ -glutamyl-alkenyl-cysteine sulfoxide, and combinations thereof as required, in part, by currently amended independent Claims 10 and 24.

The Examiner further asserts that “since [*Mühlbauer*] teaches the nutritional or pharmaceutical compositions containing a plant extract or concentrate selected from the group consisting of allium, and specifically teaches ethanolic/water extraction from *allium cepa*, this extraction would inherently comprise the  $\gamma$ -glutamyl peptides of [the] instant claims.” See, Examiner’s Answer, page 11, lines 16-20. However, Appellants respectfully submit that, to satisfy the test for inherency, the Examiner would be required to show that the extractions of *allium cepa* of *Mühlbauer* necessarily (i.e., always or automatically) result in the  $\gamma$ -glutamyl peptides of the present claims. That condition simply is not met under the present circumstances. The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. See, MPEP 2112. *In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993).

As admitted by the Examiner, *Kuttan* and *Wetli* were not utilized as prior art, and were only used as evidence to provide the allegedly known properties and characteristics of the extracted components from *allium cepa*. See, Examiner’s Answer, page 11, line 22-page 12, line 2. As such, Appellants respectfully submit that *Mühlbauer*, *Kuttan* and *Wetli* all fail to disclose or suggest nutritional and pharmaceutical compositions, respectively, comprising a  $\gamma$ -glutamyl-peptide selected from the group consisting of  $\gamma$ -glutamyl-alkyl-cysteine sulfoxide,  $\gamma$ -glutamyl-alkenyl-cysteine sulfoxide, and combinations thereof, a carrier, and a fat source, as recited, in part, by the present claims.

Further, anticipation is a factual determination that “requires the presence in a single prior art disclosure of each and every element of a claimed invention.” *Lewmar Marine, Inc. v. Barient, Inc.*, 827 F.2d 744, 747 (Fed. Cir. 1987) (emphasis added). Federal Circuit decisions have repeatedly emphasized the notion that anticipation cannot be found where less than all elements of a claimed invention are set forth in a reference. See, e.g., *Transclean Corp. v.*

*Bridgewood Services, Inc.*, 290 F.3d 1364, 1370 (Fed. Cir. 2002). As such, a reference must clearly disclose each and every limitation of the claimed invention before anticipation may be found. Indeed, the Examiner must be able to specifically identify the disclosure of each and every limitation of the claimed invention before anticipation may be found. Because *Mühlbauer* fails to disclose or suggest each and every element of the present claims, Appellants submit that *Mühlbauer* cannot anticipate the present claims.

Therefore, for at least the reasons discussed above, Appellants respectfully request that the anticipation rejection of Claims 10, 12-24, 26-28, 38-40 and 45-47 be reconsidered and withdrawn.

### **III. CONCLUSION**

For the foregoing reasons, Appellants respectfully submit that the Examiner's Answer does not remedy the deficiencies noted in Appellants' Appeal Brief with respect to the final Office Action. Therefore, Appellants respectfully request that the Board of Appeals reverse the obviousness rejections with respect to Claims 10, 12-24, 26-28, 38-40 and 45-47.

No fees are due in connection with this Reply Brief. The Director is authorized to charge any fees that may be required, or to credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 3717519-00060 on the account statement.

Respectfully submitted,

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